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Attitude and Loyalty to Two Brands of Beer of the Same Producer

František Sudzina*

Abstract

The focus of the presented research is attitude and loyalty to two brands of beer produced by the Carlsberg Group – Tuborg and Carlsberg. Both beers are lagers. The Carlsberg Group markets Tuborg as a more premium brand, and it also aims to promote it to women. Unlike in the Netherlands with one brand – Heineken and unlike in the Czech Republic with many well-known brands by a multitude of producers, the Danish case gives a unique opportunity to investigate if customers truly prefer one of two brands or are approximately equally low with regards to both brands as it is produced by the same company and tastes very similarly (if not the same). The survey was conducted in Denmark. Respondents were Danish (not international) university students; such selection was done in order to ensure familiarity of respondents with both brands.

Keywords: attitude; brand loyalty; beer.

JEL classification: M31; L66.

1. INTRODUCTION

Attitude towards a product and/or company plays an important role in marketing. It is often confused with opinion. Attitude consists of three dimensions - affective, cognitive, and conative. The affective dimension relates to emotional response to/feelings about something; it is approximately the same as opinion. The cognitive dimension should relate to knowledge about something; but, in reality, it involves beliefs one has about something. The conative dimension regards how one's attitude would influence one's action/behavior. Affective and cognitive dimensions of attitude were measured in the presented research using by [Homer \(2006\)](#) already validated instruments, while the conative dimension (for which no validated instrument was found) is based on consumption of a particular brand of beer.

[Howard and Sheth \(1969\)](#) stressed the importance of loyalty to brands already about a half-century ago. According to [Aaker \(1991\)](#), brand loyalty may imply lower marketing costs, and higher number of new customers. [Dick and Basu \(1994\)](#) point out also positive word of mouth, and increased resistance to competitive strategies among loyal consumers.

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In order to be able to achieve advantages of brand loyalty identified by [Aaker \(1991\)](#) and [Dick and Basu \(1994\)](#), branding is required. But obviously, as [Hollensen \(2016\)](#), branding means added costs, namely for marketing, labeling, packaging, and promotion.

As [Kotler *et al.* \(2017\)](#) note, even highly loyal customers can be of different types - at one extreme, quietly satisfied, and at the other extreme, ones that cannot wait to tell everybody. Loyalty consists of attitudinal and behavioral components. Attitudinal loyalty means that a customer is willing to purchase the particular product at any reasonable price. Behavioral loyalty means re-purchasing. In the paper, average loyalty to the brands is compared among groups according to an explicitly stated preference. In general, some constructs are domain-independent (such as the construct by [Sengupta and Johar \(2002\)](#) for measuring affective dimension of attitude toward any brand), some are domain-specific (such as the constructs by [Homer \(2006\)](#) for measuring affective and cognitive dimensions of attitude toward a brand of beer). To measure both attitudinal and behavioral (purchase) components of brand loyalty, general-purpose constructs developed by [Chaudhuri and Holbrook \(2001\)](#) were used.

The aim of the article is to investigate if brand loyalty can be built to similar products produced by the same company, and if the same can be observed in three dimensions of attitude. According to [Grosova *et al.* \(2017\)](#), in spite of a steady decrease, the Czech Republic still has the world highest beer consumption. But the research was conducted in Denmark where two brands of beer – Tuborg and Carlsberg – are well known virtually to everybody. In many instances, waiters in Denmark ask which of the two brands a customer wants, rather than whether the customer prefers a light or a dark beer, and what percentage of alcohol it should have. Such setting would not be available in the Czech Republic where there are many breweries with many brands.

2. DATA AND METHODOLOGY

The research was conducted in Denmark in 2014. Qualtrics was used for the on-line questionnaire. The questionnaire was in English, and it was administered on several pages. First, statements for Tuborg scales were asked, so respondents certainly understood that statements on the following pages for Carlsberg did not include all brands of the Carlsberg Group but only the Carlsberg brand. Respondents, who did not respond to Carlsberg statements, were excluded from also from the sample evaluating Tuborg statements, in order for all the statements to be evaluated by the same respondents. It means that even though 318 respondents answered questions about Tuborg, the effective sample size is 288 because only so many respondents answered questions about Carlsberg.

Both validated loyalty scales from [Chaudhuri and Holbrook \(2001\)](#) – (repeat) purchase loyalty, and attitudinal loyalty – used in the questionnaire consisted of two statements each. The statements were preceded by the instruction “Please indicate to what degree you agree with the following statements about X”, where X was first Tuborg and then Carlsberg. Purchase loyalty was measured using statements:

- I will buy X the next time I buy beer;
- I intend to keep purchasing X.

Attitudinal loyalty was measured using statements:

- I am committed to X;
- I would be willing to pay a higher price for X than for other brands.

All the statements were evaluated on a 1-5 Likert scale where 1 meant strongly agrees and 5 stood for strongly disagree. Pearson's correlation coefficient for the relationship between the two purchase loyalty statements was .717 for Tuborg and .736 for Carlsberg; these values are virtually the same as in [Grohmann \(2009\)](#) – study 6 –, and [Kumar Mishra et al. \(2016\)](#); they translate to Cronbach alphas of .835 and .847 respectively ([Sudzina, 2017b](#)). Pearson's correlation coefficient for the relationship between the two attitudinal loyalty statements was .640 for Tuborg and .638 for Carlsberg; these values are in between [Grohmann \(2009\)](#) – study 6 –, and [Kumar Mishra et al. \(2016\)](#); they translate to Cronbach alphas of .780 and .778 respectively ([Sudzina, 2017a](#)).

The correlation coefficient between two brand loyalty components was .763 for Tuborg and .802 for Carlsberg, which [Chaudhuri and Holbrook \(2001\)](#) reported correlation of only .64. [Khan et al. \(2016\)](#) reported only .442. Cronbach's alphas for all statement together (.883 and .893) is even higher than Cronbach's alphas for two components of brand loyalty separately. Cronbach's alpha for all four statement together was .74 in [Gultekin and Turgut \(2013\)](#), .74 and .77 in [Zhang et al. \(2012\)](#), for Chinese and Dutch samples respectively, .755 in [Joji \(2011\)](#), .780 in [Ramesh Kumar and Advani \(2005\)](#), .83 in [Filo et al. \(2008\)](#), .842 [Chinomona et al. \(2013\)](#), .844 in the second survey reported in [Rosengrens and Dahlen \(2015\)](#), .85 in [Kim and Zhao \(2014\)](#), .861 in [Chinomona \(2016\)](#), .90 in [Sung et al. \(2009\)](#), .91 in [Sung and Kim \(2010\)](#) and .97 in [Chung and Park \(2017\)](#). In [Rosengrens and Dahlen \(2015\)](#), it appears as if purchase (called behavioral in their paper) and attitudinal brand loyalty components were to be used as separate constructs (since statements have different abbreviations) but exploratory factor analysis of data from studies 1 and 2 created a component containing all 4 statements.

Attitudes towards Tuborg and Carlsberg were measured in three dimensions - affective, cognitive, and conative. The affective and the cognitive dimensions were measured using instruments developed by [Homer \(2006\)](#) specifically for beer brands.

The statements were preceded by the same instruction as for brand loyalty – “Please indicate to what degree you agree with the following statements about X”. Again, all the statements were evaluated on a 1-5 Likert scale where 1 meant strongly agree and 5 stood for strongly disagree.

The affective dimension was measured using statements:

- is fun;
- is refreshing;
- is satisfying;
- tastes good;
- is pleasurable;
- is relaxing;
- is enjoyable;
- is exciting.

Cronbach alphas for the affective dimension were .944 for Tuborg and .956 for Carlsberg ([Sudzina, 2017a](#)). [Homer \(2006\)](#) reported Cronbach's alphas of .88, .93, and .87 for the various sets of items used in Study 1, a pre-test of Study 2, and Study 2, respectively for the affective dimension.

The cognitive dimension was measured using statements:

- has a long-lasting head;
- is a good buy for the money;

- is made of the finest ingredients;
- is not bitter;
- has few calories;
- is thirst-quenching;
- is nutritious;
- is healthy;
- has a strong taste;
- all natural;
- has fruit flavoring;
- is cheap.

Cronbach alphas for the cognitive dimension were .785 for Tuborg and .886 for Carlsberg (Sudzina, 2017b). Homer (2006) reported Cronbach's alphas of .87, .82, and .86 for the various sets of items used in Study 1, a pre-test of Study 2, and Study 2, respectively for the cognitive dimension.

The conative dimension is based on consumption of a particular brand of beer, because no validated instrument was found. The questions were

- About how much X did you drink in the last 7 days?
- About how much X per week did you drink in the past 1-2 months?
- About how much X per week do you think you will drink in the upcoming 1-2 months?

Possible answers were (1) none, (2) less than a liter, (3) 1-2 liters, (4) more than 2 liters. Cronbach alphas for the conative dimension were .843 for Tuborg and .906 for Carlsberg (Sudzina, 2017b).

Brand preference was measured using the question "What brand of beer do you prefer?". The possible choices were:

- Carlsberg (31 respondents, i.e. 11%);
- Tuborg (91 respondents, i.e. 32%);
- Carlsberg and Tuborg equally (33 respondents, i.e. 11%);
- other brand (71 respondents, i.e. 25%);
- I do not like beer in general (61 respondents, i.e. 21%).

Each preference choice was chosen by more than 30 respondents, so it is realistic to find differences between any of the groups. The distribution also confirmed that the selection of Denmark as a case country was suitable since more than half of respondents prefer Tuborg and/or Carlsberg, esp. considering that more than one fifth does not like to drink beer.

The questionnaire contained additional questions which were not used in the analysis presented in this article.

Ten models were tested – two dimensions of brand loyalty and three dimensions of attitude to Tuborg and Carlsberg as dependent variables. All ten models were first tested using two-way ANOVA with interactions where independent variables were brand preference and gender (and their interaction). Interaction between gender and brand preference were not significant in any of the ten models, though it is worth mentioning the p-value for the conative dimension of attitude towards Tuborg was .052. Therefore, the interaction was not included in any of the models presented in next section. Gender was not significant in any of the first four (loyalty) models, therefore it was excluded for these models. Least significant difference (LSD) test was used for post-hoc multiple comparison for observed means. In order to better communicate strength of relationships, R^2 and partial eta squared will be provided. SPSS software was used for the analysis.

3. RESULTS

First, impact of brand preference on purchase loyalty towards Tuborg was tested. Parameter estimates are provided in [Table no. 1](#).

Table no. 1 – Parameter estimates for purchase loyalty towards Tuborg

Parameter	B	Std. Error	t	Sig.	Partial Eta Squared
Intercept	4.238	.104	40.654	.000	.854
Carlsberg	-.931	.180	-5.186	.000	.087
Tuborg	-1.941	.135	-14.408	.000	.424
Carlsberg and Tuborg equally	-1.647	.176	-9.361	.000	.237
Other brand	-1.062	.142	-7.470	.000	.165
Do not like beer	0 ^a	.	.	.	.

Note: a. This parameter is set to zero because it is redundant.

Source: author's calculations

With regards to the explanatory power of the model, $R^2 = .441$, $R^2_{adj} = .433$, and the model is significant ($p\text{-value} < 0.001$). It is obvious that purchase loyalty towards Tuborg is higher (i.e. the value is lower) for beer drinkers than for non-drinkers of beer. Instead of changing the reference category and finding other significant differences, LSD test was used for post-hoc multiple comparison for observed means. [Table no. 2](#) contains mean purchase loyalty towards Tuborg and significant differences are marked with asterisks.

Table no. 2 – Post-hoc multiple comparison for purchase loyalty towards Tuborg

	Brand preference	Loyalty	1	2	3	4	5
1	Carlsberg	3.3		*	*		*
2	Tuborg	2.3	*			*	*
3	Carlsberg and Tuborg equally	2.6	*			*	*
4	Other brand	3.2		*	*		*
5	Do not like beer	4.2	*	*	*	*	

Source: author's calculations

Second, impact of brand preference on attitudinal loyalty towards Tuborg was tested. Parameter estimates are provided in [Table no. 3](#).

Table no. 3 – Parameter estimates for attitudinal loyalty towards Tuborg

Parameter	B	Std. Error	t	Sig.	Partial Eta Squared
Intercept	4.426	.111	39.964	.000	.850
Carlsberg	-.894	.191	-4.685	.000	.072
Tuborg	-1.569	.143	-10.962	.000	.299
Carlsberg and Tuborg equally	-1.093	.187	-5.847	.000	.108
Other brand	-.518	.151	-3.429	.001	.040
Do not like beer	0 ^a	.	.	.	.

Note: a. This parameter is set to zero because it is redundant.

Source: author's calculations

With regards to the explanatory power of the model, $R^2 = .324$, $R^2_{adj} = .314$, and the model is significant (p-value < 0.001). Table no. 4 contains mean attitudinal loyalty towards Tuborg and significant differences identified using LSD test are marked with asterisks.

Table no. 4 – Post-hoc multiple comparison for attitudinal loyalty towards Tuborg

	Brand preference	Loyalty	1	2	3	4	5
1	Carlsberg	3.5		*		*	*
2	Tuborg	2.6	*		*	*	*
3	Carlsberg and Tuborg equally	3.3		*		*	*
4	Other brand	3.9	*	*	*		*
5	Do not like beer	4.4	*	*	*	*	

Source: author's calculations

Third, impact of brand preference on purchase loyalty towards Carlsberg was tested. Parameter estimates are provided in Table no. 5.

Table no. 5 – Parameter estimates for purchase loyalty towards Carlsberg

Parameter	B	Std. Error	t	Sig.	Partial Eta Squared
Intercept	4.180	.119	35.070	.000	.813
Carlsberg	-1.793	.205	-8.733	.000	.213
Tuborg	-.565	.154	-3.667	.000	.046
Carlsberg and Tuborg equally	-1.271	.201	-6.319	.000	.124
Other brand	-.737	.163	-4.533	.000	.068
Do not like beer	0 ^a	.	.	.	.

Note: a. This parameter is set to zero because it is redundant.

Source: author's calculations

With regards to the explanatory power of the model, $R^2 = .245$, $R^2_{adj} = .235$, and the model is significant (p-value < 0.001). Table no. 6 contains mean purchase loyalty towards Carlsberg and significant differences identified using LSD test are marked with asterisks.

Table no. 6 – Post-hoc multiple comparison for purchase loyalty towards Carlsberg

	Brand preference	Loyalty	1	2	3	4	5
1	Carlsberg	2.4		*	*	*	*
2	Tuborg	3.6	*		*		*
3	Carlsberg and Tuborg equally	2.9	*	*		*	*
4	Other brand	3.4	*		*		*
5	Do not like beer	4.2	*	*	*	*	

Source: author's calculations

Fourth, impact of brand preference on attitudinal loyalty towards Carlsberg was tested. Parameter estimates are provided in Table no. 7.

With regards to the explanatory power of the model, $R^2 = .189$, $R^2_{adj} = .178$, and the model is significant (p-value < 0.001). Table no. 8 contains mean attitudinal loyalty towards Carlsberg and significant differences identified using LSD test are marked with asterisks.

Table no. 7 – Parameter estimates for attitudinal loyalty towards Carlsberg

Parameter	B	Std. Error	t	Sig.	Partial Eta Squared
Intercept	4.320	.115	37.669	.000	.834
Carlsberg	-1.433	.198	-7.252	.000	.157
Tuborg	-.572	.148	-3.862	.000	.050
Carlsberg and Tuborg equally	-1.001	.194	-5.175	.000	.087
Other brand	-.327	.156	-2.089	.038	.015
Do not like beer	0 ^a	.	.	.	.

Note: a. This parameter is set to zero because it is redundant.

Source: author's calculations

Table no. 8 – Post-hoc multiple comparison for attitudinal loyalty towards Carlsberg

Brand preference	Loyalty	1	2	3	4	5
1 Carlsberg	2.9		*		*	*
2 Tuborg	3.7	*		*		*
3 Carlsberg and Tuborg equally	3.3		*		*	*
4 Other brand	4.0	*		*		*
5 Do not like beer	4.3	*	*	*	*	

Source: author's calculations

To sum up, in all four models there was a significant difference in loyalty towards Carlsberg and loyalty towards Tuborg for respondents who prefer either Carlsberg or Tuborg. This answers the questions whether customers can truly prefer one of two beer brands produced by the same company that taste very similarly. So it is possible to conclude that brand loyalty can be built to similar products produced by the same company.

A not so surprising finding is respondents who do not like beer exhibit smaller loyalty to the two investigated beer brands than respondents who like beer (regardless if it is Tuborg, Carlsberg, or are undecided between Tuborg and Carlsberg, or like a different brand of beer).

Another not so surprising results was that average loyalty for respondents who prefer Tuborg and Carlsberg equally was in between averages for respondents who prefer only Tuborg and only Carlsberg.

A more surprising finding is that significant differences in loyalty were found almost between all preference categories; to be more specific, only one difference was not significant for attitudinal loyalty towards Tuborg and purchase loyalty towards Carlsberg, and two differences were not significant for purchase loyalty towards Tuborg and attitudinal loyalty towards Carlsberg.

Another observation is that in three of four models, respondents who prefer a different Carlsberg Group brand, are loyal to the investigated Carlsberg Group brand only as much as (i.e. not significantly differently than) respondents who prefer a non-Carlsberg Group brand. In other words, respondents who prefer Carlsberg or other brand do not significantly differ in purchase loyalty towards Tuborg, respondents who prefer Tuborg or other brand do not significantly differ in purchase loyalty towards Carlsberg, and respondents who prefer Tuborg or other brand do not significantly differ in attitudinal loyalty towards Carlsberg. It also supports the thesis that it is possible to build a brand loyalty to similar products produced by the same company without building a loyalty to all products produced by the company.

Fifth, impact of brand preference on the affective dimension of attitude towards Tuborg was tested. Parameter estimates are provided in [Table no. 9](#).

Table no. 9 – Parameter estimates for affective dimension of attitude towards Tuborg

Parameter	B	Std. Error	t	Sig.	Partial Eta Squared
Intercept	3.800	.085	44.892	.000	.878
Gender=male	-.298	.090	-3.296	.001	.037
Gender=female	0 ^a	.	.	.	.
Carlsberg	-1.417	.152	-9.337	.000	.237
Tuborg	-1.472	.118	-12.469	.000	.356
Carlsberg and Tuborg equally	-1.612	.145	-11.087	.000	.304
Other brand	-1.206	.127	-9.496	.000	.243
Do not like beer	0 ^a	.	.	.	.

Note: a. This parameter is set to zero because it is redundant.

Source: author's calculations

With regards to the explanatory power of the model, $R^2 = .516$, $R^2_{adj} = .508$, and the model is significant (p-value < 0.001). Table no. 10 contains mean affective dimension of attitude towards Tuborg and significant differences identified using LSD test are marked with asterisks.

Table no. 10 – Post-hoc multiple comparison for affective dimension of attitude towards Tuborg

Brand preference	Attitude	1	2	3	4	5
1 Carlsberg	2.2					*
2 Tuborg	2.1				*	*
3 Carlsberg and Tuborg equally	2.0				*	*
4 Other brand	2.4		*	*		*
5 Do not like beer	3.7	*	*	*	*	

Source: author's calculations

Sixth, impact of brand preference on the cognitive dimension of attitude towards Tuborg was tested. Parameter estimates are provided in Table no. 11.

Table no. 11 – Parameter estimates for cognitive dimension of attitude towards Tuborg

Parameter	B	Std. Error	t	Sig.	Partial Eta Squared
Intercept	3.795	.064	59.758	.000	.927
Gender=male	-.164	.068	-2.425	.016	.020
Gender=female	0 ^a	.	.	.	.
Carlsberg	-.286	.114	-2.508	.013	.022
Tuborg	-.425	.089	-4.792	.000	.076
Carlsberg and Tuborg equally	-.314	.109	-2.877	.004	.029
Other brand	-.171	.095	-1.794	.074	.011
Do not like beer	0 ^a	.	.	.	.

Note: a. This parameter is set to zero because it is redundant.

Source: author's calculations

With regards to the explanatory power of the model, $R^2 = .147$, $R^2_{adj} = .132$, and the model is significant (p-value < 0.001). Table no. 12 contains mean cognitive dimension of attitude towards Tuborg and significant differences identified using LSD test are marked with asterisks.

Table no. 12 – Post-hoc multiple comparison for cognitive dimension of attitude towards Tuborg

	Brand preference	Attitude	1	2	3	4	5
1	Carlsberg	3.4					*
2	Tuborg	3.3				*	*
3	Carlsberg and Tuborg equally	3.4					*
4	Other brand	3.5		*			*
5	Do not like beer	3.8	*	*	*	*	

Source: author's calculations

Seventh, impact of brand preference on the conative dimension of attitude towards Tuborg was tested. Parameter estimates are provided in [Table no. 13](#).

Table no. 13 – Parameter estimates for conative dimension of attitude towards Tuborg

Parameter	B	Std. Error	t	Sig.	Partial Eta Squared
Intercept	1.074	.101	10.595	.000	.285
Gender=male	.530	.108	4.905	.000	.079
Gender=female	0 ^a	.	.	.	.
Carlsberg	.877	.182	4.823	.000	.076
Tuborg	1.087	.141	7.689	.000	.174
Carlsberg and Tuborg equally	1.009	.174	5.796	.000	.107
Other brand	.845	.152	5.556	.000	.099
Do not like beer	0 ^a	.	.	.	.

Note: a. This parameter is set to zero because it is redundant.

Source: author's calculations

With regards to the explanatory power of the model, $R^2 = .356$, $R^2_{adj} = .344$, and the model is significant (p-value < 0.001). [Table no. 14](#) contains mean conative dimension of attitude towards Tuborg and significant differences identified using LSD test are marked with asterisks.

Table no. 14 – Post-hoc multiple comparison for conative dimension of attitude towards Tuborg

	Brand preference	Attitude	1	2	3	4	5
1	Carlsberg	2.3					*
2	Tuborg	2.5					*
3	Carlsberg and Tuborg equally	2.4					*
4	Other brand	2.4					*
5	Do not like beer	1.2	*	*	*	*	

Source: author's calculations

Eighth, impact of brand preference on the affective dimension of attitude towards Carlsberg was tested. Parameter estimates are provided in [Table no. 15](#).

With regards to the explanatory power of the model, $R^2 = .427$, $R^2_{adj} = .416$, and the model is significant (p-value < 0.001). [Table no. 16](#) contains mean affective dimension of attitude towards Carlsberg and significant differences identified using LSD test are marked with asterisks.

Table no. 15 – Parameter estimates for affective dimension of attitude towards Carlsberg

Parameter	B	Std. Error	t	Sig.	Partial Eta Squared
Intercept	3.941	.095	41.360	.000	.859
Gender=male	-.241	.102	-2.368	.019	.020
Gender=female	0 ^a	.	.	.	.
Carlsberg	-1.613	.171	-9.439	.000	.241
Tuborg	-1.037	.133	-7.800	.000	.178
Carlsberg and Tuborg equally	-1.693	.164	-10.344	.000	.276
Other brand	-1.220	.143	-8.530	.000	.206
Do not like beer	0 ^a	.	.	.	.

Note: a. This parameter is set to zero because it is redundant.

Source: author's calculations

Table no. 16 – Post-hoc multiple comparison for affective dimension of attitude towards Carlsberg

Brand preference	Attitude	1	2	3	4	5
1 Carlsberg	2.1		*		*	*
2 Tuborg	2.7	*		*		*
3 Carlsberg and Tuborg equally	2.1		*		*	*
4 Other brand	2.5	*		*		*
5 Do not like beer	3.9	*	*	*	*	

Source: author's calculations

Ninth, impact of brand preference on the cognitive dimension of attitude towards Carlsberg was tested. Parameter estimates are provided in [Table no. 17](#).

Table no. 17 – Parameter estimates for cognitive dimension of attitude towards Carlsberg

Parameter	B	Std. Error	t	Sig.	Partial Eta Squared
Intercept	3.939	.080	48.996	.000	.895
Gender=male	-.270	.086	-3.151	.002	.034
Gender=female	0 ^a	.	.	.	.
Carlsberg	-.572	.144	-3.968	.000	.053
Tuborg	-.253	.112	-2.251	.025	.018
Carlsberg and Tuborg equally	-.407	.138	-2.947	.003	.030
Other brand	-.222	.121	-1.841	.067	.012
Do not like beer	0 ^a	.	.	.	.

Note: a. This parameter is set to zero because it is redundant.

Source: author's calculations

With regards to the explanatory power of the model, $R^2 = .137$, $R^2_{adj} = .121$, and the model is significant (p-value < 0.001). [Table no. 18](#) contains mean cognitive dimension of attitude towards Carlsberg and significant differences identified using LSD test are marked with asterisks.

Tenth, impact of brand preference on the conative dimension of attitude towards Carlsberg was tested. Parameter estimates are provided in [Table no. 19](#).

Table no. 18 – Post-hoc multiple comparison for cognitive dimension of attitude towards Carlsberg

	Brand preference	Attitude	1	2	3	4	5
1	Carlsberg	3.2		*		*	*
2	Tuborg	3.5	*				*
3	Carlsberg and Tuborg equally	3.4					*
4	Other brand	3.5	*				*
5	Do not like beer	3.9	*	*	*	*	

*Source: author's calculations***Table no. 19 – Parameter estimates for conative dimension of attitude towards Carlsberg**

Parameter	B	Std. Error	t	Sig.	Partial Eta Squared
Intercept	1.038	.104	10.005	.000	.263
Gender=male	.395	.111	3.572	.000	.043
Gender=female	0 ^a	.	.	.	.
Carlsberg	1.120	.186	6.020	.000	.114
Tuborg	.466	.145	3.222	.001	.036
Carlsberg and Tuborg equally	.884	.178	4.961	.000	.081
Other brand	.493	.156	3.169	.002	.035
Do not like beer	0 ^a	.	.	.	.

Note: a. This parameter is set to zero because it is redundant.

Source: author's calculations

With regards to the explanatory power of the model, $R^2 = .235$, $R^2_{adj} = .222$, and the model is significant (p-value < 0.001). Table no. 20 contains mean conative dimension of attitude towards Carlsberg and significant differences identified using LSD test are marked with asterisks.

Table no. 20 – Post-hoc multiple comparison for conative dimension of attitude towards Carlsberg

	Brand preference	Attitude	1	2	3	4	5
1	Carlsberg	2.5		*		*	*
2	Tuborg	1.8	*		*		*
3	Carlsberg and Tuborg equally	2.2		*			*
4	Other brand	1.9	*				*
5	Do not like beer	1.1	*	*	*	*	

Source: author's calculations

Compared to brand loyalty, the first difference is that attitude depends on gender. Men have a stronger attitude towards both brands in all three dimensions.

When it comes to attitude per se, attitude toward Carlsberg is more distinct, LSD identified a significant difference between respondents who prefer Tuborg only and Carlsberg only. There was no significant difference in attitude towards Tuborg between respondents who prefer Tuborg only and Carlsberg only.

4. CONCLUSION

The article aimed to answer if it is possible for a company producing two well-known and similar products to build a strong brand for both products independently on the case of

Carlsberg Group producing Tuborg and Carlsberg beer brands. Therefore, the research was conducted in Denmark.

Approximately three quarters of respondents who preferred Carlsberg or Tuborg were able to select one of them as a preferred one. In three of four models, respondents who preferred a different Carlsberg Group brand, are loyal to the investigated Carlsberg Group brand only as much as (i.e. not significantly differently than) respondents who preferred a non-Carlsberg Group brand.

For both beer brands and for both components of loyalty, there was a significant difference in loyalty towards Carlsberg and loyalty towards Tuborg for respondents who prefer either Carlsberg or Tuborg. All these findings support the hypothesis that it is possible to build a brand loyalty to two similarly tasting beers produced by the same company without building a loyalty to all beers produced by the company. Although with regards attitude, results are mixed - attitude towards Carlsberg differs between respondents who prefer either Carlsberg or Tuborg but attitude Tuborg does not differ. In spite of that, it is advisable that further research is focused on how Carlsberg Group managed to achieve it with the aim on how to replicate the success, preferably also in other industries and in other countries.

References

- Aaker, D. A., 1991. *Managing Brand Equity*. New York, NY: The Free Press.
- Chaudhuri, A., and Holbrook, M. B., 2001. The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty. *Journal of Marketing*, 65(2), 81-93. doi: <http://dx.doi.org/10.1509/jmkg.65.2.81.18255>
- Chinomona, R., 2016. Brand communication, brand image and brand trust as antecedents of brand loyalty in Gauteng Province of South Africa. *African Journal of Economic and Management Studies*, 7(1), 124-139. doi: <http://dx.doi.org/10.1108/AJEMS-03-2013-0031>
- Chinomona, R., Mahlangu, D., and Pooe, D., 2013. Brand Service Quality, Satisfaction, Trust and Preference as Predictors of Consumer Brand Loyalty in the Retailing Industry. *Mediterranean Journal of Social Sciences*, 4(14), 181-190. doi: <http://dx.doi.org/10.5901/mjss.2013.v4n14p181>
- Chung, S., and Park, J., 2017. The influence of brand personality and relative brand identification on brand loyalty in the European mobile phone market. *Canadian Journal of Administrative Sciences*, 34(1), 47-62. doi: <http://dx.doi.org/10.1002/cjas.1321s>
- Dick, A. S., and Basu, K., 1994. Customer Loyalty: Toward an Integrated Conceptual Framework. *Journal of the Academy of Marketing Science*, 22(2), 99-113. doi: <http://dx.doi.org/10.1177/0092070394222001>
- Filo, K., Funk, D. C., and Alexandris, K., 2008. Exploring the role of brand trust in the relationship between brand associations and brand loyalty in sport and fitness. *International Journal of Sport Management and Marketing*, 3(1/2), 39-57. doi: <http://dx.doi.org/10.1504/IJSM.2008.015960>
- Grohmann, B., 2009. Gender dimensions of brand personality. *JMR, Journal of Marketing Research*, 46(1), 105-119. doi: <http://dx.doi.org/10.1509/jmkr.46.1.105>
- Grosova, S., Masar, M., Kutnohorska, O., and Kubes, V., 2017. The demand for beer in Czech Republic: Understanding longrun on- and off-trade price elasticities. *Czech Journal of Food Sciences*, 35(2), 165-170. doi: <http://dx.doi.org/10.17221/365/2016-CJFS>
- Gultekin, B., and Turgut, M. U., 2013. The role of brand loyalty, customer and brand related cues in the gas station industry in Turkey. *International Journal of Arts and Commerce*, 2(11), 29-40.
- Hollensen, S., 2016. *Global Marketing* (7th ed. ed.). London: Pearson.
- Homer, P. M., 2006. Relationships Among Ad-Induced Affect, Beliefs, and Attitudes: Another Look. *Journal of Advertising*, 35(1), 35-51. doi: <http://dx.doi.org/10.2753/JOA0091-3367350103>

- Howard, J., and Sheth, J., 1969. *The Theory of Buyer Behavior*. New York: John Wiley & Sons.
- Joji, A. N., 2011. Consumer Evaluations of Product Line Brand Extension. *Journal of Brand Management*, 8(1), 22-35.
- Khan, M. N., -ul-Aabdean, Z., Salman, M., Nadeem, B., and Rizwan, M., 2016. The Impact of Product and Service Quality on Brand Loyalty: Evidence from Quick Service Restaurants. *American Journal of Marketing Research*, 2(3), 84-94.
- Kim, R., and Zhao, M., 2014. Chinese Consumers' Brand Loyalty for Consumer Products: Importance of Brand Personality as Major Antecedent of Brand Loyalty. *Asian Academy of Management Journal*, 19(1), 1-15.
- Kotler, P., Armstrong, G., Harris, L. C., and Piercy, N., 2017. *Principles of Marketing* (7th European ed. ed.). New Jersey: Pearson Publishing.
- Kumar Mishra, M., Kesharwani, A., and Das, D., 2016. The relationship between risk aversion, brand trust, brand affect and loyalty: Evidence from the FMCG industry. *Journal of Indian Business Research*, 8(2), 78-97. doi: <http://dx.doi.org/10.1108/JIBR-04-2015-0045>
- Ramesh Kumar, S., and Advani, J. Y., 2005. Factors Affecting Brand Loyalty: A study in an emerging market on fast moving consumer goods. *Journal of Customer Behaviour*, 4(2), 251-275. doi: <http://dx.doi.org/10.1362/1475392054797223>
- Rosengrens, S., and Dahlen, M., 2015. Exploring Advertising Equity: How a Brand's Past Advertising May Affect Consumer Willingness to Approach Its Future Ads. *Journal of Advertising*, 44(1), 1-13. doi: <http://dx.doi.org/10.1080/00913367.2014.961666>
- Sengupta, J., and Johar, G. V., 2002. Effects of Inconsistent Attribute Information on the Predictive Value of Product Attitudes: Toward a Resolution of Opposing Perspectives. *The Journal of Consumer Research*, 29(1), 39-56. doi: <http://dx.doi.org/10.1086/339920>
- Sudzina, F., 2017a. *Testing scales for attitude towards beer: The case of two brands of beer of the same producer*.
- Sudzina, F., 2017b. Testing scales for beer brand loyalty: The case of two brands of beer of the same producer *Current Problems of the Corporate Sector 2017*. Bratislava (pp. 972-978). Bratislava: University of Economics.
- Sung, Y., and Kim, J., 2010. Effects of brand personality on brand trust and brand affect. *Psychology and Marketing*, 27(7), 639-661. doi: <http://dx.doi.org/10.1002/mar.20349>
- Sung, Y., Kim, J., and Jung, J. H., 2009. The Predictive Roles of Brand Personality on Brand Trust and Brand Affect: A Study of Korean Consumers. *Journal of International Consumer Marketing*, 22(1), 5-17. doi: <http://dx.doi.org/10.1080/08961530902844907>
- Zhang, S., van Doorn, J., and Leeftang, P. S. H., 2012. Changing consumer markets and marketing in China. *International Journal of Business and Emerging Markets*, 4(4), 328-351. doi: <http://dx.doi.org/10.1504/IJBEM.2012.049825>

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